

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-8 remain active in this case, Claims 1-3 and 5-7 having been amended by the present amendment.

In the outstanding Office Action, Claims 1-8 were rejected under 35 U.S.C. § 102(b) as anticipated by Shirakawa et al. (U.S. 2002/0051536, hereinafter called "Shirakawa").

In light of the outstanding rejection on the merits, the claims have been amended to clarify the claimed subject matter, and thereby more clearly patentably define over the applied prior art. To that end, amended Claims 1 and 5 clarify that each secret protective attribute holding section stores an actual encryption key used to obtain the execution code or data stored in a cache line corresponding thereto by encryption. Accordingly, in the claimed invention, there may be a case where the actual encryption key is different from a prescribed key corresponding to a program that issues a reading request. According to the claimed invention, if it is judged that the actual encryption key stored in the secret protection attribute holding section of a cache line that stores the existent execution code or data is identical with the prescribed key corresponding to a program that issues the reading request, the execution code or data in the cache memory is read out.

In view of the amendments to Claims 1 and 5, Claims 1 and 5 are believed to be patentably distinguishing over Shirakawa which merely stores data indicating one of the entries of a key pair table and does not store any encryption key. Therefore, Shirakawa fails to teach or suggest reading out the execution code or data in the cache memory if the execution code or data exists in the cache memory and the actual encryption key stored in the secret protection attribute holding section of a cache line that stores the existent execution

code or data is identical with the prescribed key corresponding to a program that issues the reading request.

Although the outstanding Office Action states the position that the keys must match, according to Applicants' invention the keys are judged to be identical since there is a case where the keys are different from each other. In that case, according to Applicants' invention, even though a desired execution code or data is found in the cache memory, the execution code or data is not read from the cache memory when the keys are not identical, i.e., different. It is respectfully submitted that amended Claims 1 and 5 clearly patentably distinguish over Shirakawa which fails to teach storing an encryption key in a cache memory and thus is incapable of teaching or suggesting the claimed invention stated in amended Claims 1 and 5.

With respect to Claims 2 and 6, the outstanding Office Action seems to take the position that it is an inherent property of cache to update the keys stored in the register after each occasion of executing. Applicants point out, however, that updating the key has no connection with the cache. Furthermore, Applicants point out that paragraphs [0058]-[0064] in Shirakawa, relied upon in the outstanding rejection of Claims 2 and 6, merely disclose whether the execution of the operation is permitted or not according to at least three values indicating a type of the operation, a value of the tag attached to the operand of the operation and an effective key tag pair which is provided in a processor core. Such teachings clearly, in Applicants' view, do not render obvious the claimed invention recited in any of Claims 1, 2, 5 and 6.

Similarly, with respect to Claims 3 and 7, paragraphs [0065]-[0067] in Shirakawa fail to teach or suggest storing the prescribed encryption key stored in the key value register into the secret protection attribute holding section of a cache line for the data.

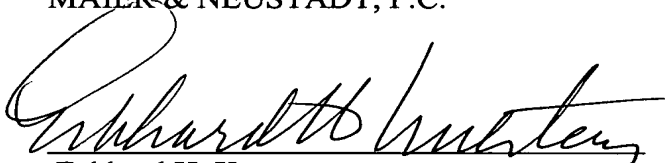
With respect to Claims 4 and 8, Applicants respectfully submit that Shirakawa fails to teach or suggest encrypting a processing result of the data by using the actual encryption key stored in the secret protection attribute holding section of a cache line for the data.

Accordingly, in view of the above-noted deficiencies in the prior art, it is respectfully submitted that Claims 1-8, individually and by virtue of dependency (where appropriate) patentably define over the applied prior art.

Consequently, in view of the present amendment, and in light of the above discussion, it is respectfully submitted that the outstanding rejection on the merits has been overcome, and that amended Claims 1-8 are in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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